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EXAMINER

DELCOTTO, GREGORY R

ART UNIT PAPER NUMBER

1751

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4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,280

Applicant(s)

REVELAM ET AL.

Examiner

Gregory R. Del Cotto

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_

### DETAILED ACTION

1. Claims 1-15 are pending.

#### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to a dry cleaning composition, classified in class 510, subclass 285.
- II. Claims 13 drawn to a method of preparing a dry cleaning composition, classified in class 510, subclass 456.
- III. Claims 14 and 15, drawn to a method of dry cleaning a textile fabric, classified in class 8, subclass 142.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product of Group I can be made by a materially different process such as by mixing all of the components together simultaneously. .

Inventions of Group I and Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially

Art Unit: 1751

different process of using that product (MPEP § 806.05(h)). In the instant case, the product of Group I can be used in a materially different process such as in a method of cleaning precision parts.

The invention of Group II and Group III are patentably distinct since the invention of Group II is drawn to a method of preparing a dry cleaning composition which is materially different from the invention of Group III which is drawn to a process of dry cleaning fabrics.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ronald Koatz on January 29, 2003, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 1751

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites a broad recitation and the claim also recites "preferably..." which is the narrower statement of the range/limitation.

Art Unit: 1751

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeSimone et al (US 5,866,005).

DeSimone et al teach carbon dioxide is employed as a fluid in a liquid, gaseous, or supercritical phase. The CO<sub>2</sub> fluid used in cleaning applications can be employed in a single or multi-phase system with appropriate and known aqueous and organic liquid components. Such components generally include a co-solvent or modifier, a co-surfactant, and other additives such as bleaches, optical brighteners, enzymes, rheology modifiers, etc. Any or all of the components may be employed in the CO<sub>2</sub>-based cleaning process prior to, during, or after the substrate is contacted by the CO<sub>2</sub> fluid. See column 2, lines 35-65. Exemplary solutes which may be used as co-solvents include alcohols such as methanol, ethanol; amines such as N-methyl pyrrolidone, amides such as dimethyl acetamide, etc. The process employs an amphiphilic species contained within the carbon dioxide fluid. The amphiphilic species is generally present in the carbon dioxide fluid from 0.001 to 30 weight percent and it is preferred that the amphiphilic species contain a segment which has an affinity for the CO<sub>2</sub> phase, and more preferably, the amphiphilic species also contains a segment which does not have an affinity for the CO<sub>2</sub> phase (CO<sub>2</sub>-phobic) and may be covalently joined to the CO<sub>2</sub>-philic segment. See column 3, lines 20-60. Amphiphilic species which are suitable for the composition may be in the form of random, block, and star homopolymers, copolymers, and co-oligomers. Various components which are suitable for the process are encompassed by the class of materials known as fluorinated surfactants. See column 4, line 40 to column 5, line 10.

DeSimone et al teach that two types of co-solvents or modifiers may be employed, namely one which is miscible with the CO<sub>2</sub> fluid and one that is not miscible

Art Unit: 1751

with the fluid. When a co-solvent is employed which is miscible with the CO<sub>2</sub> fluid, a single phase solution results. When a co-solvent is employed which is not miscible with the CO<sub>2</sub> fluid, a multi-phase system results. See column 3, lines 1-20. Note that, the Examiner maintains that the broad teaching of DeSimone et al would encompass in which the polar solvent is present as a microemulsion within the densified CO<sub>2</sub> because DeSimone et al suggest compositions containing surfactants in amounts which would allow the polar solvent to be present as a microemulsion.

DeSimone et al do not specifically teach the use of a hydrophilic fluorescent agent such as a distyrylbiphenyl derivative or a dry cleaning composition containing densified carbon dioxide, a polar solvent, surfactant, hydrophilic fluorescer such as a distyrylbiphenyl derivative, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Schlenker et al teach a process for the fluorescent whitening of hydrophobic textile materials, especially polyesters, wherein the textile material is treated with disperse fluorescent whitening agents in supercritical CO<sub>2</sub>. See Abstract. Suitable fluorescent agents include distyrylbenzenes, vinylstilbenes, stilbenzylbenzoxazoles, bis(benzoxazoles), coumarins, styrylbenzoxazoles, distyrylbiphenyls, etc. See column 2, line 20 to column 4, line 20.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a hydrophilic brightening agent such as a distyrylbiphenyl derivative in the dry cleaning composition taught by DeSimone et al, with a reasonable expectation of success, because Schlenker et al teach the use of hydrophilic



Art Unit: 1751

brighteners such as a distyrylbiphenyl derivative in a similar supercritical CO<sub>2</sub> composition used in treating textiles and, further, DeSimone et al teach the use of optical brightening agents in general.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a dry cleaning composition containing densified carbon dioxide, a polar solvent, surfactant, hydrophilic fluorescer such as a distyrylbiphenyl derivative, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of DeSimone et al in combination with Schlenker et al suggest a dry cleaning composition containing densified carbon dioxide, a polar solvent, surfactant, hydrophilic fluorescer such as a distyrylbiphenyl derivative, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeSimone et al in view of Schlenker et al as applied to claims 1 and 3-12 above, and further in view of WO 96/27704.

DeSimone et al and Schlenker et al are relied upon as set forth above. However, neither reference teaches the specific surfactant in addition to the other requisite components of the composition as recited by instant claim 2.

'704 teaches a dry cleaning system for removing stains from fabrics comprising an effective amount of densified carbon dioxide, 0.001% to 10% by weight of a

Art Unit: 1751

surfactant which is soluble in the densified carbon dioxide and which is represented by the formula  $R_nZ_{n'}$ , wherein  $R_n$  is a densified CO<sub>2</sub>-philic functional group,  $R$  is a halocarbon, a polysiloxane, or a branched polyalkylene oxide and  $n$  is 1 to 50;  $Z_n$  is a densified CO<sub>2</sub>-phobic functional group and  $n'$  is from 1 to 50. See page 67, claim 1.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a surfactant having the general formula  $R_nZ_{n'}$  in the dry cleaning composition taught by DeSimone et al, with a reasonable expectation of success, because '704 teaches the use of surfactants having the general formula  $R_nZ_{n'}$  in a similar densified CO<sub>2</sub> containing dry cleaning composition and, further, DeSimone et al generally teach the use of surfactants having CO<sub>2</sub>-philic and CO<sub>2</sub>-phobic groups.

### **Conclusion**

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (703) 308-2519. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

Art Unit: 1751

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

GRD  
February 2, 2003

GREGORY DELCOTTO  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'G. Delcotto', written over the printed name and title.